

Claims

1. An automobile power cable comprising:
a stranded wire formed of a plurality of high conductive Al alloy strands each essentially consisted of:
Zr: 0.05 to 0.4 wt.%,
Fe: 0.05 to 0.2 wt.%,
Si: 0.05 to 0.2 wt.%,
a total amount of one or at least two kinds selected from a group consisting of Be, Sr, Mg, Ti and V: 0.003 to 0.05 wt.%, and
balance being Al and inevitable impurities;
at least one insulation layer for covering said stranded wire and at least one shield layer formed of a braid containing more than 99 wt.% of Al.

2. An automobile power cable comprising:
a stranded wire formed of a plurality of high strength conductive Al alloy strands each essentially consisted of:

Zr: 0.03 to 0.4 wt.%,

Fe: 0.2 to 0.7 wt.%,

Si: 0.2 to 0.6 wt.%,

Mg: 0.35 to 1.2 wt.%,

Cu: 0.05 to 0.4 wt.%,

a total amount of at least one of two kinds of Ti and V: 0.003 to 0.05 wt.%, and

balance being Al and inevitable impurities;

at least one insulation layer for covering said stranded wire and at least one shield layer formed of a braid containing more than 99 wt.% of Al.

3. An automobile power cable as claimed in claim 1, wherein each of said Al alloy strands is coated on its outer surface with a Ni layer.

4. An automobile power cable as claimed in claim 2, wherein each of

said Al alloy strands is coated on its outer surface with a Ni layer.

5. An automobile power cable as claimed in any one of claims 1 to 4, wherein each of said insulation layer and said shield layer comprises a single layer, and said stranded wire is covered with the insulation layer and the shield layer, in this order.

6. An automobile power cable as claimed in any one of claims 1 to 4, wherein said insulation layer comprises two layers of a first insulation layer and a second insulation layer while said shield layer comprises a single layer, and said stranded wire is covered with the first insulation layer, the shield layer and the second insulation layer, in this order.

7. An automobile power cable as claimed in any one of claims 1 to 4, wherein said insulation layer comprises three layers of a first insulation layer, a second insulation layer and a third insulation layer while said shield layer comprises two layers of a first shield layer and a second shield layer, and said stranded wire is covered with the first insulation layer, the first shield layer, the second insulation layer, the second shield layer and the third insulation layer, in this order.

8. An automobile power cable as claimed in claim 5, wherein said insulation layer is made of flame-resistant polyolefin resin.

9. An automobile power cable as claimed in claim 6, wherein said insulation layer is made of flame-resistant polyolefin resin.

10. An automobile power cable as claimed in claim 7, wherein said insulation layer is made of flame-resistant polyolefin resin.

43 11. A terminal for an automobile power cable made of Al alloy which is essentially consisted of:

Zr: 0.03 to 0.4 wt.%,

Si: 0.05 to 0.15 wt.%, and

balance being Al and inevitable impurities;

wherein said terminal for the automobile power cable comprises a cylindrical terminal connected to said stranded wire in said automobile power cable as claimed in any one of claims 1 to 4, is coated over its surface adapted to be made into contact with the stranded wire of the power cable, with a Ni layer, and is formed therein with locking grooves having a depth of greater than 0.1 mm.

12. A terminal for an automobile power cable made of Cu alloy which is essentially consisted of:

Zr: 10 to 40 wt%, and

balance being Cu and inevitable impurities;

wherein said terminal for the automobile power cable comprises a cylindrical terminal connected to said stranded wire in said automobile power cable as claimed in any one of claims 1 to 4, is coated over its surface adapted to be made into contact with the stranded wire of the power cable, with an Sn layer, and is formed therein with locking grooves having a depth of greater than 0.1 mm.

2. ~~13~~. A terminal as claimed in claim ~~1~~¹, wherein said insulation layer in said automobile power cable is made of flame-resistant polyolefin resin.

4. ~~14~~. A terminal as claimed in claim ~~3~~³~~2~~, wherein said insulation layer in said automobile power cable is made of flame-resistant polyolefin resin.

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